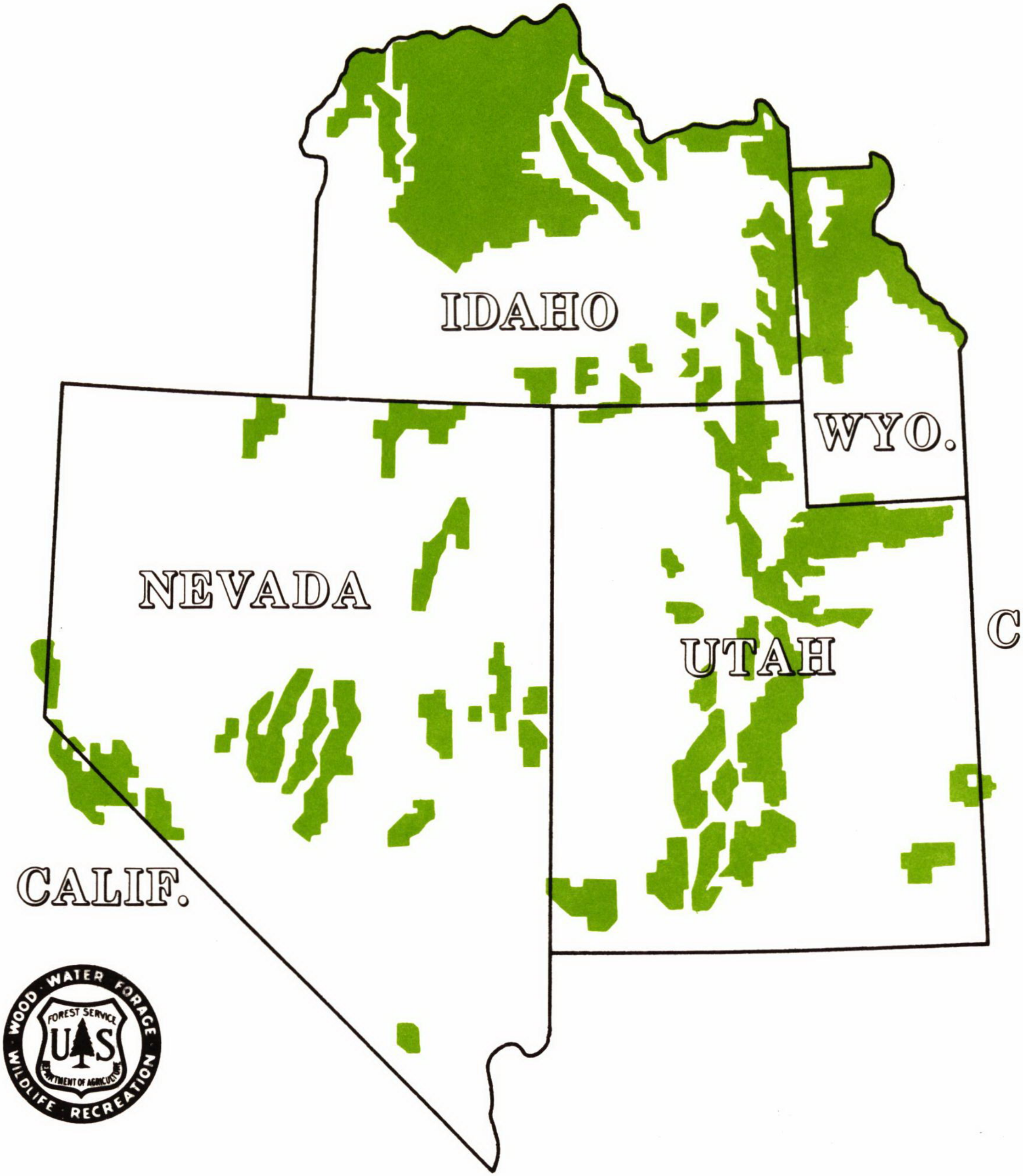
SD11 F.S
.R4

MULTIPLE USE IN ACTION

FOREST SERVICE INTERMOUNTAIN REGION
U.S. DEPARTMENT OF AGRICULTURE

LIBRARY
AUG 13 1969
ROCKY MOUNTAIN STATION

The Intermountain Region NATIONAL FORESTS


IDAHO
WYO.
NEVADA
UTAH
COLO.
CALIF.

WOOD · WATER · FORAGE · WILDLIFE · RECREATION
FOREST SERVICE
U S
DEPARTMENT OF AGRICULTURE

MULTIPLE USE

WOOD · WATER · FORAGE · WILDLIFE · RECREATION
FOREST SERVICE
U S
DEPARTMENT OF AGRICULTURE

IN ACTION

MULTIPLE USE PLANNING TOOLS

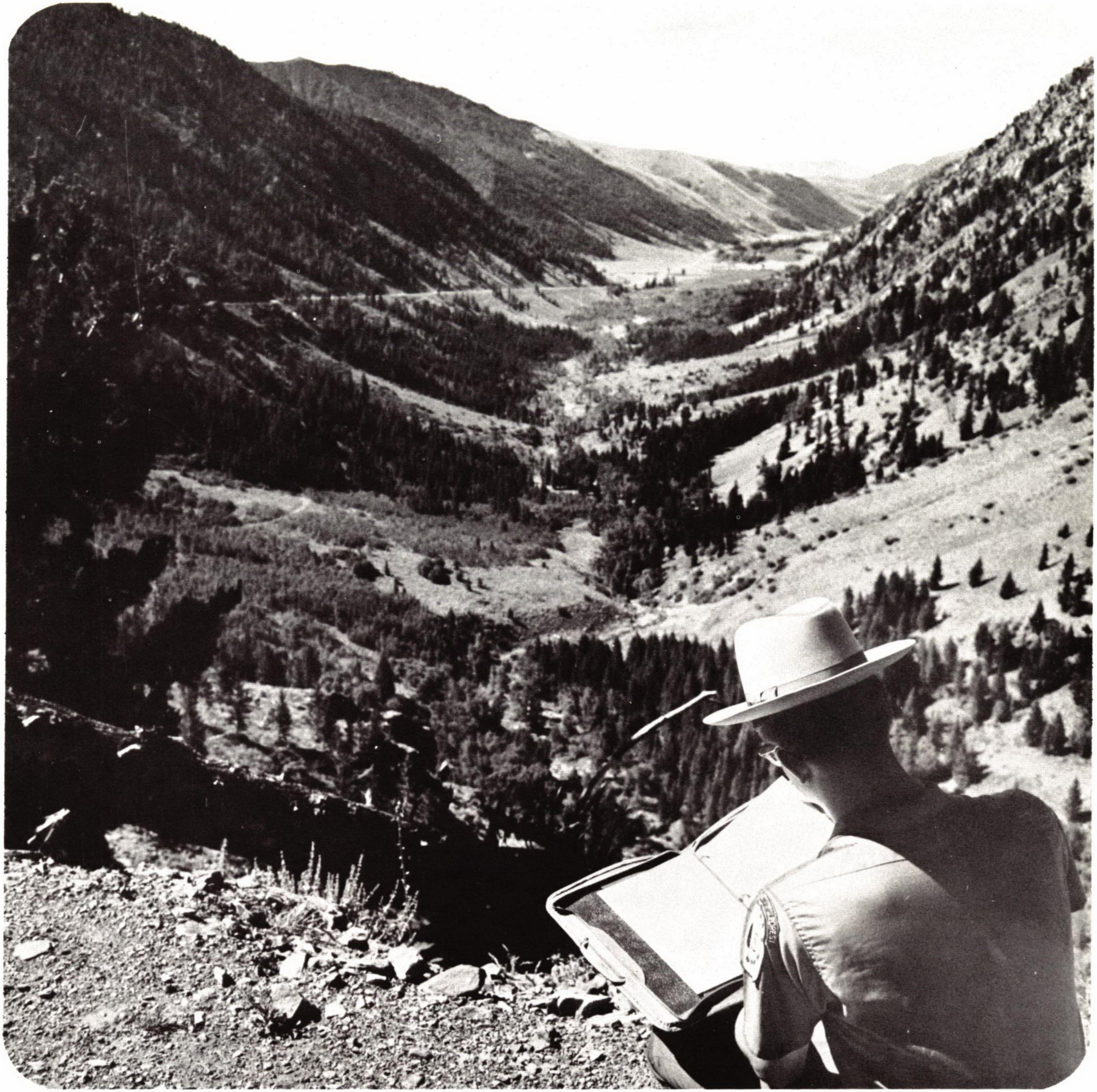
Three basic tools provide the framework for multiple use planning in the Intermountain Region — the Regional Multiple Use Management Guide, the Ranger District Multiple Use Plan, and the multiple use survey and report. Together they guide the management of National Forest lands according to directions set forth by Congress in the Multiple Use-Sustained Yield Act of June 12, 1960.

The Regional Guide describes management situations and outlines basic assumptions for the various resources and activities. It gives management direction and establishes coordinating requirements for multiple use management zones. These zones are based upon land characteristics and capabilities plus existing and potential resource uses and activities. Various elements of the Regional Guide are described more fully in the companion booklet — "Multiple Use — Mandate for Management."

The Ranger District Multiple Use Plan includes coordination considerations and management decisions for the management zones. Also, within the zones the Plan provides for a variety of management units where special coordination of uses is required. These zones and units are shown in the map section of the Multiple Use Plan.

To assure desired balance, all District resource uses and activities are carefully analyzed and adjusted according to the Regional Guide and Ranger District Multiple Use Plan. However, these tools may not identify some of the detailed coordination needs fully enough for a specific project. For that reason, the third tool — the multiple use survey — is used when any project is proposed.

After studying the Multiple Use Plan and the Regional Guide, the Forest Ranger surveys on the ground the various features of the proposed project area. In the multiple use survey report he notes all coordination needs in detail.



MULTIPLE USE IN ACTION

The Forest Ranger looks from his plans toward his District, where he sees "multiple use in action." He searches for visible signs to indicate that all uses are properly blended and balanced. As he considers the area, this trained land manager is concerned with today and tomorrow — with the social and economic needs of the community, the State, and the Nation.

How can he know that his District is being managed for the greatest good of the American public? What is the basis for the many far-reaching decisions he must make?

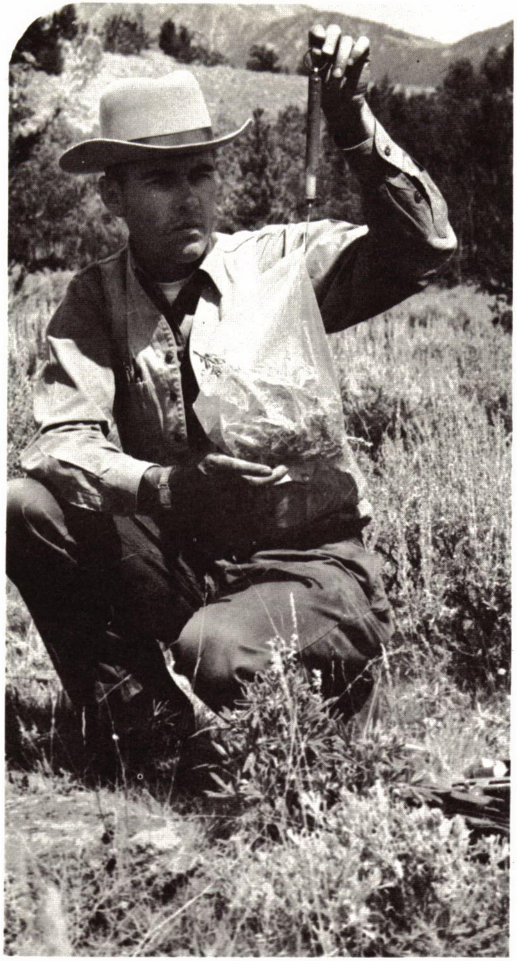
His blueprint for action is in the Ranger District Multiple Use Plan and the Regional Multiple Use Management Guide. They provide a solid foundation for making proper land management prescriptions in his multiple use surveys. As he does this, the Ranger is guided by research findings and the counsel of many specialists. He also benefits from his academic training, plus years of experience in a variety of situations.

While pondering any prospective use for an area, whether it originates from a broad Forest Service program or from some "outside" agency or individual, the Ranger considers the total environment and all values — some tangible, some intangible, but all interrelated. For example, he weighs carefully the effects of a proposed timber sale on the area's air, soil, water, range, fish, wildlife, recreation, esthetic, and other values. Only then is he prepared to plan the action he will follow. He uses the same procedure in considering any other proposed project, such as a road, recreation area, dam, or range improvement project. In each case, he determines all needed and feasible adjustments for coordination of the proposal with related uses and activities.

On some areas, permitting only one use may be necessary for the good of the public. On most areas, well planned coordination provides for a harmonious combination of uses and activities.

NOT ALL PROPOSED PROJECTS ARE APPROVED. A PROJECT IS DISAPPROVED WHEN A MULTIPLE USE SURVEY SHOWS THAT ITS ADVERSE IMPACTS ON OTHER USES CANNOT BE ACCEPTED OR CORRECTED.

On the following pages we look over the Forest Ranger's shoulder as he weighs resource values and needs of people and makes decisions for "multiple use in action."



IMPROVING RANGELANDS

CONSIDERING ALL VALUES

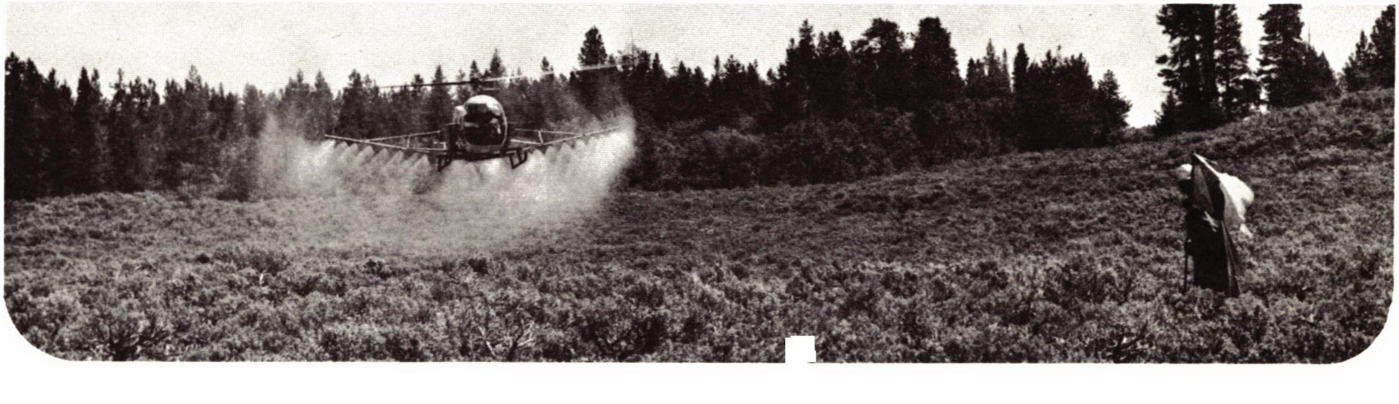
The soil and its plant cover must be fully understood before National Forest System rangelands can be properly managed. In dense stands of sagebrush, other plants often do not thrive and are less available to grazing animals. Thinning or removal of sagebrush cover makes more water and food available to better forage plants. In this way, rangelands are improved for livestock, and food sources for some species of game are increased.

Before proceeding with any project which alters plant cover, possible adverse and desirable features are considered. Will soil be left poorly protected and require the seeding of grass? Will nesting grounds or protective cover for sage grouse and other wildlife be seriously damaged? Will habitat for small animals be improved? Will natural beauty suffer? Will water yields be increased? The Forest Ranger must weigh many such factors in deciding whether a project is "go" and, if so, in seeking coordination needs.

CONTROLLED WITH CARE

Beauty is added to a meadow by a single pine tree or a group of aspen. Willows protect streambanks and improve fish and wildlife habitat. Desirable shrubs grow better when some sagebrush is removed, but trees and shrubs can be damaged by the chemicals used. Properly timed, sprays are effective on sagebrush without killing mingled bitterbrush and other desirable browse plants needed by elk and deer.

Flagmen guide aircraft to assure that only planned areas are sprayed, while nearby streams, willow bushes, and pine trees are avoided. Chemicals are applied by helicopter rather than airplane so that greater control of drift is attained.



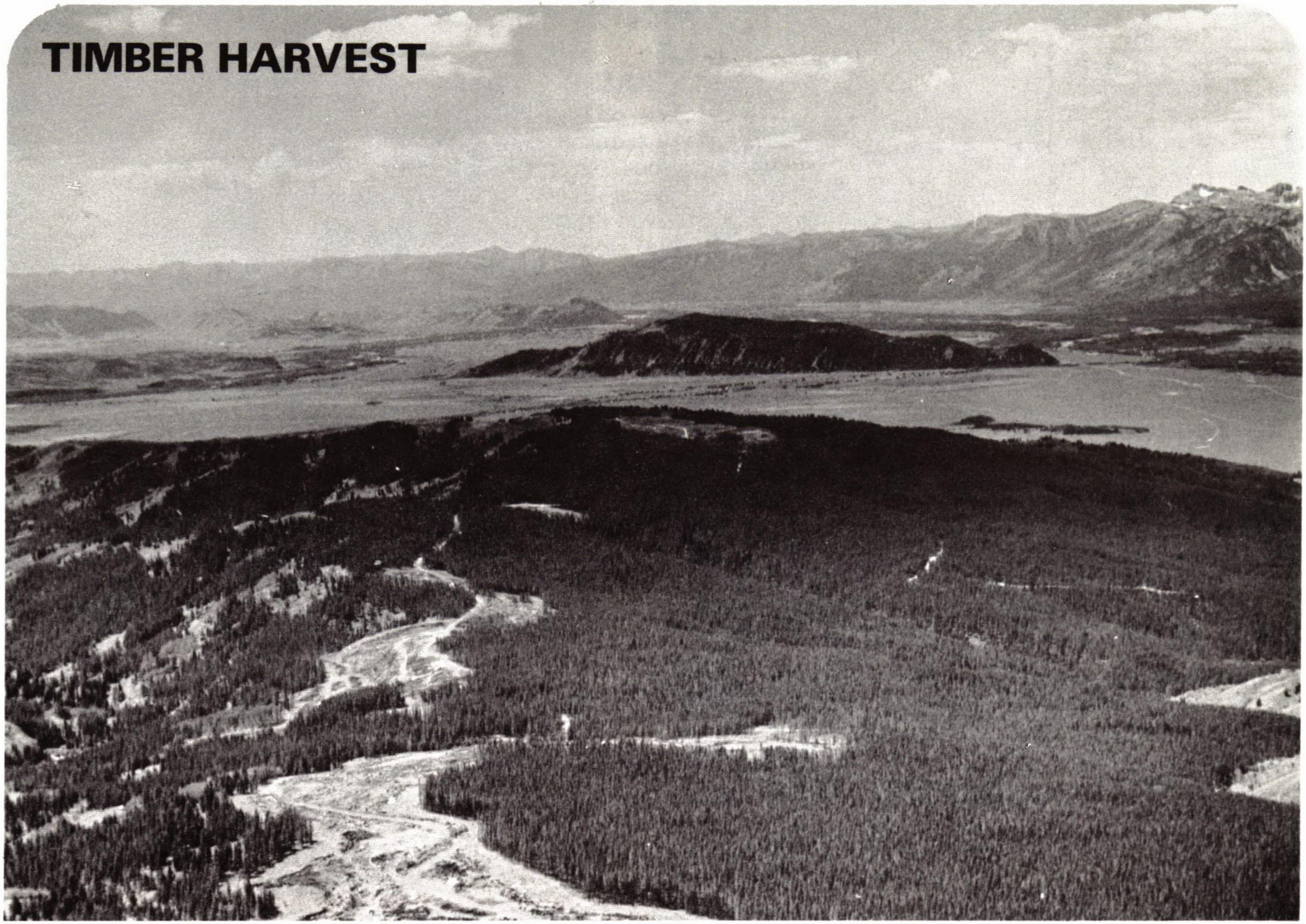
WHERE SAGEBRUSH IS NEEDED

Sage grouse habitat may be affected in more than one way when sagebrush is removed. When these game birds are young, forbs provide the major portion of their diet — sagebrush, their cover. As they grow older, they require sagebrush for food as well. Therefore, range improvement projects are carefully planned to leave the needed clumps and strips of sagebrush, within and around the edges of sprayed areas. Nesting areas and "booming" grounds are protected.

THE VIEW FROM INSIDE

A small willow-fringed pond and a grove of aspen adjoining a meadow are unusual scenic attractions when autumn brings color to the foliage. National Forest visitors enjoy watching and photographing moose, elk, deer, and other wildlife drinking at these ponds. Recognized by the Forest Ranger, such areas are carefully protected when range improvement is undertaken.

TIMBER HARVEST



FOR A BRIGHTER FUTURE

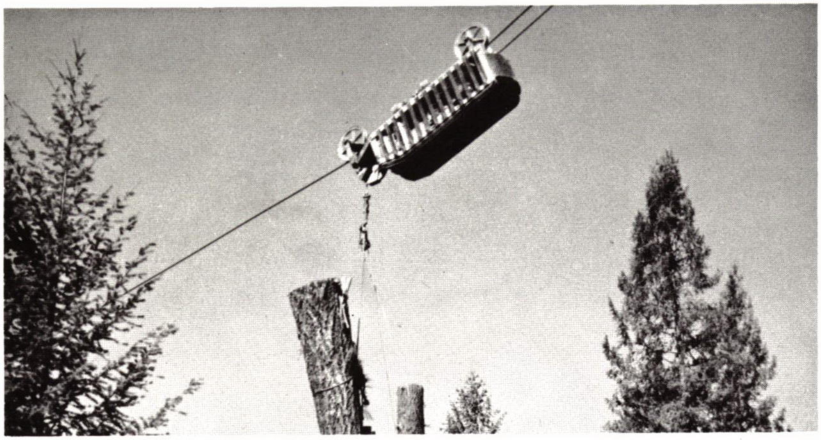
Where overmature timber has been properly harvested, the forest has a brighter future. While removing some of the old, diseased, and insect-infested trees, a timber harvest strengthens the local and national economy by providing lumber for industry. Removal of carefully selected trees, singly or in groups of various sizes, creates openings that provide sunlight and space for attractive young and vigorous trees to grow and complete their life cycle.

Wildflowers, shrubs, and grasses soon fill such openings, providing food for wildlife and livestock, and adding scenic color. Planned irregular boundaries make harvest areas look like natural openings — in harmony with the forest setting. Watershed values are protected as trees are removed. Snowpack is increased in open areas.

The Forest Ranger's multiple use survey for a proposed timber sale identifies the many coordination needs. The areas to be harvested and logging practices to be used are carefully chosen to avoid harming other values. It improves the overall health of the forest and is often beneficial to other uses.

FRINGE BENEFITS

One of the added values of openings created by National Forest timber harvest is the attraction they have for various species of wildlife — large and small. Many big-game animals are drawn to these areas by the warm sunlight and the heavy growth of released brush and other plants. Animals can find plenty to eat without venturing far from their sanctuaries in the fringes of nearby timber stands. Hunters are often more successful in these open areas.



AIRLIFT

Lifting logs by aerial crane from stumps to loading areas protects watershed values on steep mountainous terrain. With this special "skyline" harvesting system, erodible soils are given needed protection. There is little disturbance to standing trees and other ground cover. Scenic values are also spared, since such specialized equipment permits harvest with fewer roads.

OFF TO A GOOD START

A new and better forest is off to a good start following a timber harvest. Attractive and vigorous forest cover is promptly restored. Watershed values of the site are safeguarded.

Control fences or special herding practices protect the young trees from range livestock until these trees are large enough to be safe while surrounding forage is grazed.

MINERAL AND OIL RECOVERY

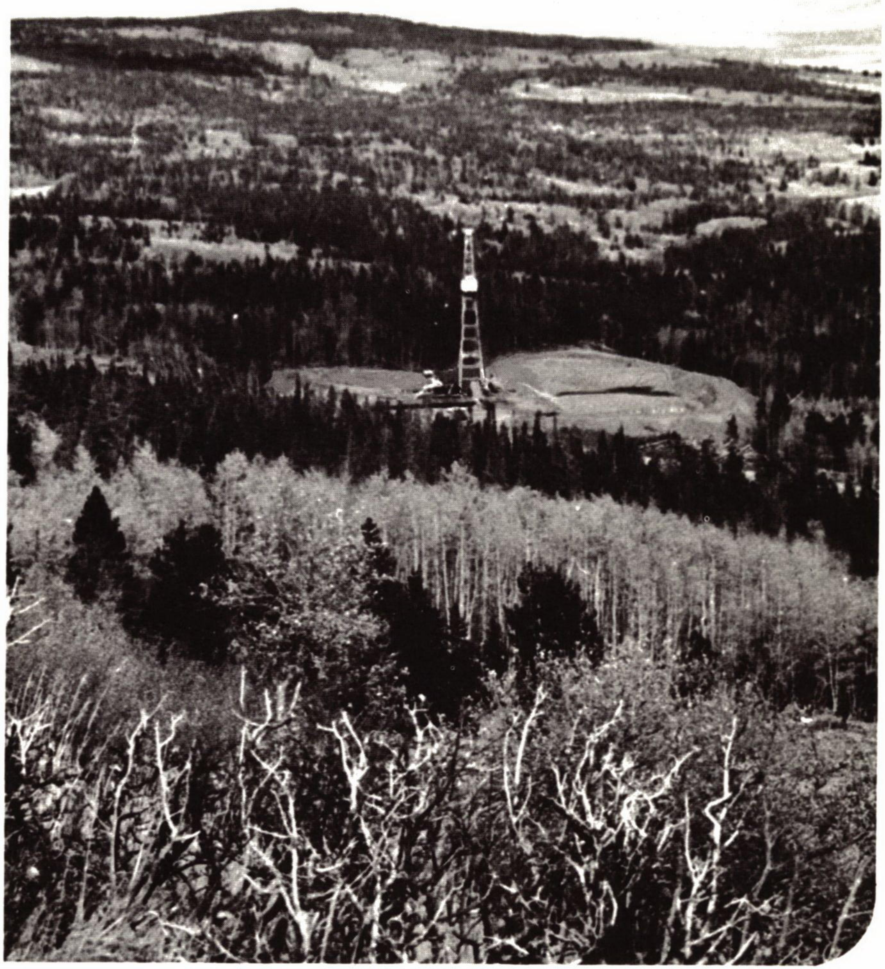
BENEATH THE SURFACE

To find and gain access to the Nation's storehouse of oil and gas beneath the earth's surface, wells must be drilled. When drill rigs need to be located on National Forest lands, the Forest Ranger works closely with the cooperating company officials to assure that these structures are placed where they will have minimum adverse effects and maximum benefits.

Wherever possible, wells are situated to avoid areas of heavy recreation use. To protect outstanding scenic forest settings, directional drilling from nearby inconspicuous sites may be required.

Sludge is pumped through pipelines to a disposal pit, where it dries without contaminating water supplies. Great care is taken to avoid any pollution of streams and lakes or significant loss to fish or wildlife habitat.

Trees cleared from drill sites and access roads are harvested or ground into chips, leaving no unsightly log and slash heaps. Access roads built by the oilmen conform to the Forest's multipurpose transportation plan and are used by recreationists, hunters, timber operators, and others.



MINERAL WEALTH

Minerals within the National Forests are utilized for the benefit of the Nation. The importance of mining to the economy and to national defense efforts is considerable, but in the process the soil mantle is disturbed. The District Ranger sees what is needed to hold maximum soil in place and keep the streams clear during mining, and to promptly restore ground cover following mining. Rangers, research scientists, and cooperative industry people combine efforts to find and use plants which will thrive and provide a pleasing and suitable protective cover on mine dump soils.

RESERVOIR CONSTRUCTION AND USE

TO USE AND ENJOY

Maintaining a high water level in reservoirs during the tourist season calls for skilled reservoir design and operation, and close coordination with the water users. A full reservoir provides the greatest recreation and scenic values. Whenever possible, draw-downs are scheduled after the peak of public use.

Boaters, fishermen, and water skiers use reservoirs on the National Forests for much of their recreation. The Forest Ranger and his staff work to prevent recreation-related water pollution and to assure public safety.

Fishermen — young and old — often land exceptionally good catches in the streams below a reservoir outlet. Usually, joint planning by the State Fish and Game Department, the Forest Service, and the construction agency assures that reservoir releases are adequate to maintain downstream fisheries quality.

A LIVING PART OF THE FOREST

About 70 percent of the water used by cities, farms, industries, and rural communities in the Intermountain Region comes from National Forest lands. Manmade reservoirs help meet the area's water needs. Reservoirs prevent or reduce flood damage, provide stored water for power and irrigation, serve as places for people to fish and play, and furnish reserves of water for today and the future.

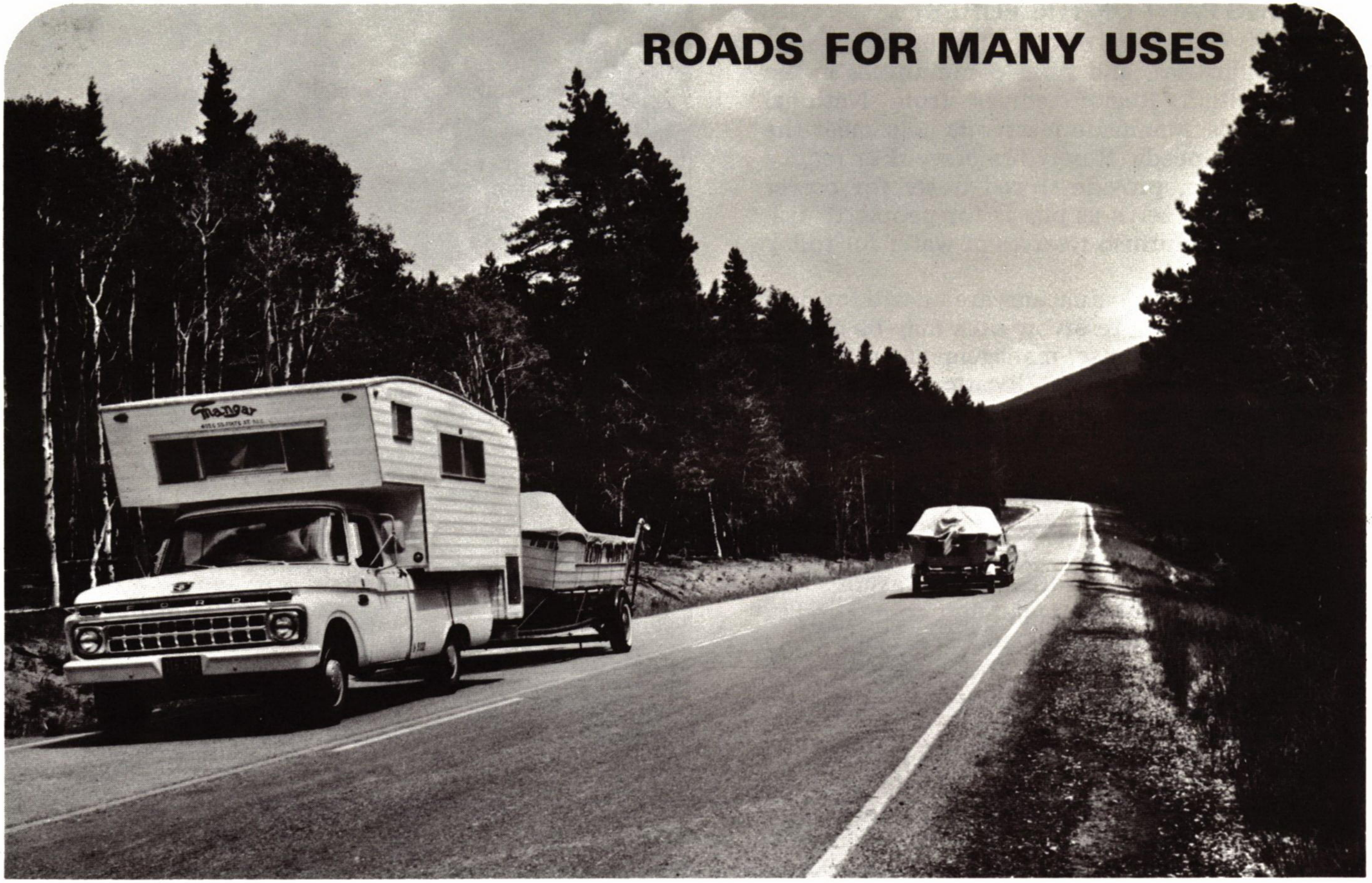
Some geological situations are unsafe for dam sites. Some "safe" reservoir sites may be unsuitable for multiple use management of related resources. The proper location and other requirements for a dam and reservoir are determined by a thorough multiple use survey of the environment.

Most dams and reservoirs on National Forest lands are constructed by other agencies and organizations. Working with project engineers and many others, the Forest Ranger assures that approved projects have maximum compatibility with related resource uses and activities. Properly planned, constructed, and managed, such reservoirs become a living part of the Forest.

REMEMBERING THE WILD CREATURES

Man alters the homes of many wild creatures when dams and related water projects are built. Marshlands that are important for waterfowl are developed or maintained around reservoirs on National Forests by planting or protecting desirable aquatic and shoreline vegetation. In some areas, reservoirs are used to give wildlife an improved source of needed water during critical periods.

ROADS FOR MANY USES



A ROAD FOR ALL SEASONS

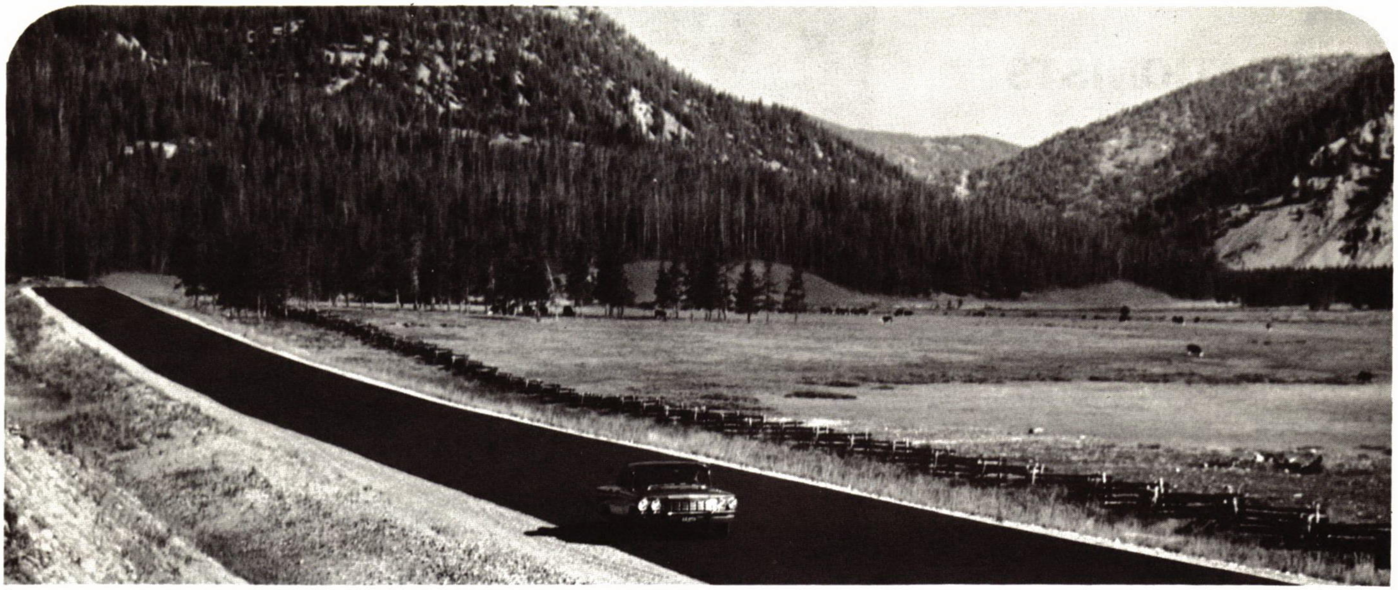
The place is a National Forest road; the time is summer. Logging trucks roll toward a timber sale area designed so it is not obvious from the road. A station wagon pulling a trailer turns into a recreation area screened from the road by heavy foliage. At the same time, a car carrying men, boys, and fishing poles stops at a turnout located near a favorite fishing hole.

The season changes to autumn. Parking at a nearby turnout, people harvest berries in nearby berry patches. Campers and pickup trucks, some carrying fresh-killed deer, head toward home. Drivers and passengers enjoy a bonus of fall colors from established scenic vistas.

Winter comes and snow covers the landscape. Roads are plowed so that cars carrying skiers can reach a local winter resort. Snowmobiles are safely unloaded in special parking spots.

Snow disappears and spring arrives. Trucks haul sheep and cattle toward National Forest rangelands. Soon the summer recreationists appear, and the year-round cycle of multiple use activity begins again.

Planning the features of a road to accommodate many uses begins when the Forest Ranger first considers the need for a road and the resources it will serve. After construction, multiple use of the road continues each year — through all seasons.



THE WAY OF A ROAD

A road need not — and frequently should not — be the shortest distance between two points. Often it can be designed to skirt the edge of a scenic and productive meadow, allowing unhampered use by wildlife or livestock.

A well-planned road is safe for driving. It provides access to nearby campgrounds and other recreation areas. For the traveler, it offers changing vistas of beauty, interest, and variety, while blending into the landscape with minimal disturbance to soils and plants.

COLOR IT GREEN

Plant cover is needed on cutbanks along roadsides, to cover scarred areas and to halt erosion. Hydro-seeders are frequently used to spread seed, fertilizer, and mulch on barren slopes. This is one of many methods used by the Forest Service to protect watershed values and improve scenic qualities when roads are constructed on National Forests.

FOR RECREATIONISTS

THE NEEDS OF MANY

Each Forest Service recreation development is specially tailored to create harmony between recreationists and their environment. Some popular sites provide for large numbers of visitors in a concentrated area. Other sites are isolated and of simple design, to assure solitude and a place to contemplate and enjoy natural beauty.

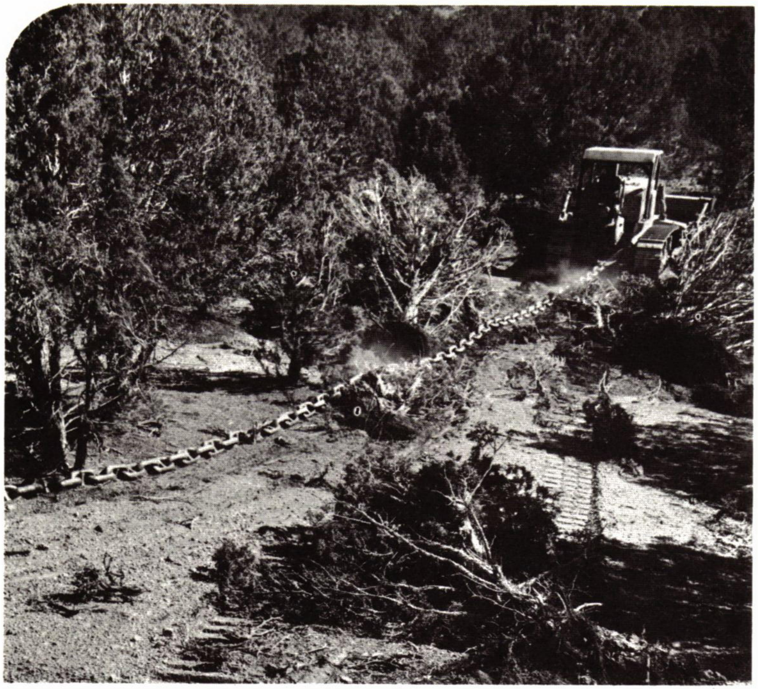
In the multiple use survey preceding campground construction, the Forest Ranger identifies many needs. Native trees and shrubs are kept or planted to screen camp and picnic sites from roads and other developed areas. Individual campsite developments are located to provide good camping environment and to take advantage of the scenery. Yet they are kept far enough from streams and lakes to assure shoreline access to fishermen, avoid water pollution, and give campers privacy.

FUNCTIONS OF A FENCE

Fences make it possible to have clean, attractive National Forest campgrounds within rangeland areas where livestock graze. Rustic fences that harmonize with the landscape further add to the area's attractiveness while separating camping from livestock use. By providing opportunities for pleasant camping experiences for tourists while maintaining the livestock industry, the Forest Service helps to stimulate the economy in rural areas.

WITH PEOPLE IN MIND

Trees hazardous to people in National Forest campgrounds are removed. Often dead or dying due to insects and disease, some unsafe trees are utilized by the lumber industry, while others are used for camper firewood. Stumps are cut close to the ground. Damage to remaining trees and other vegetation is carefully avoided. To restore scenic values and reduce fire hazard, slash and debris are cleaned up soon after logging.



BALANCE RESTORED

At lower elevations — where the climate is hot and dry and where early-day grazing use was too heavy — stands of juniper have largely replaced other vegetation on some National Forest lands. Properly mixed with other plants, these trees may be useful and attractive. However, in many instances, roots of these thirsty invaders have crowded out desirable forage plants and other ground cover, leaving bare, eroding soil. In such places, removal of much of the juniper and some of the pinyon pine is necessary before the land can develop needed ground cover and adequate feed for livestock and game.

An effective way to improve these range-watershed lands is to uproot unwanted trees, using tractors dragging a large chain between them. Suitable material from the trees may be utilized for fence posts. The soil in such areas is promptly reseeded with grasses and shrubs needed for wildlife and livestock.

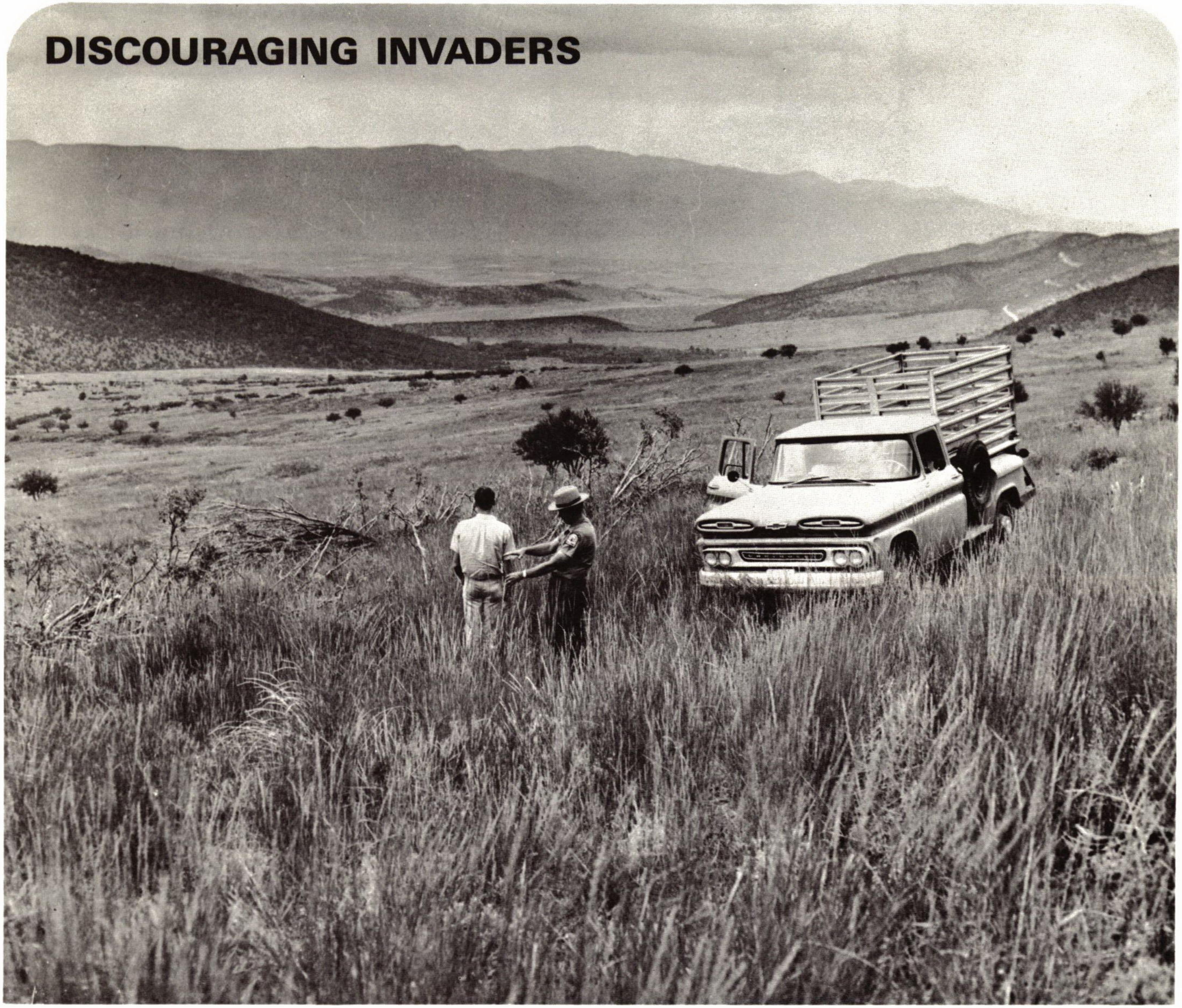
In his multiple use survey, the Forest Ranger also recognizes the need for adequate protective escape and shelter areas for wildlife. Strips and patches of trees are left untouched, to blend naturally with the landscape. Desirable pinyon pines are left for future Christmas trees and tasty pinenut crops. Single trees with scenic qualities are also left.

DIGGING FOR DATA

Forest Service soil scientists provide many basic facts needed by the Forest Ranger in his multiple use survey of a proposed juniper removal project. Soil is tested carefully.

Is removal work feasible and desirable? If it is, how can desirable native plants best be left or provided, as undesirable plants are removed? Hydrologists, wildlife biologists range revegetation specialists, and others provide further data needed to help the Ranger answer these and many other questions.

DISCOURAGING INVADERS



THE RIGHT TIME AND THE RIGHT PLACE

Impacts on people are much less when the correct time and place for a juniper removal project are selected. The Forest Ranger avoids blocking roads or creating potential safety hazards during periods of heavy public use. He works with the livestock permittees to minimize the temporary disruption of their grazing. He avoids disturbing key areas during seasons of bird nesting and deer fawning.

WILDERNESS

SPECIAL MANAGEMENT FOR SPECIAL AREAS

Established areas of Wilderness play a key role in the National Forest multiple use program. Natural conditions are intentionally perpetuated in each Wilderness. The Forest Service assures special opportunities for the users to enjoy solitude, undisturbed scenery, and a primitive unconfined type of recreation experience. Timber is not harvested, and roads are not built.

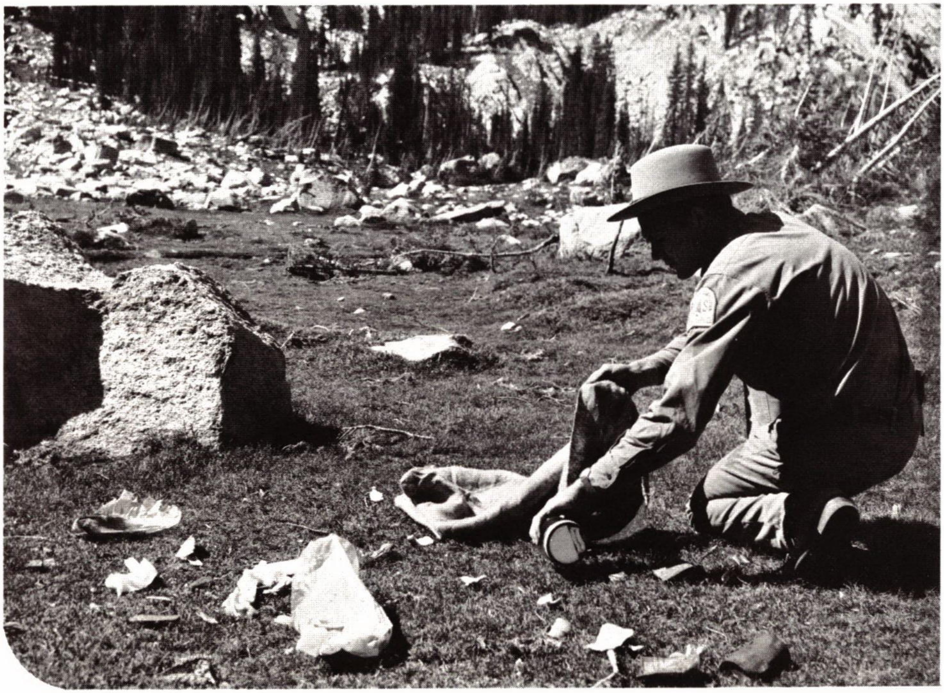
Even in these deliberately undeveloped places, much coordination is necessary to assure that human uses and activities do not damage the Wilderness environment. The Wilderness Ranger stresses to visitors the importance of preventing forest fires, litter, and water pollution. He directs them to little-used areas, to help avoid too much use on the more popular, but often fragile, sites.

BLAZING WILDERNESS TRAILS

Wilderness trails are carefully developed by the Forest Service to blend with the landscape and take the traveler safely through the Wilderness with a feeling that he is in "an area where the earth and its community of life are untrammeled by man." To maintain a quiet Wilderness environment, construction is done without power equipment, whenever practical. Grades and alignments are varied to reduce blasting and clearing. To minimize disturbance of water tables and to protect scenic values, trails usually are located out of swales and along the edges of meadows rather than across them. Motorized vehicles are not permitted on Wilderness trails.

CARE AND FEEDING

Watershed qualities and scenic beauty of a Wilderness can be maintained only if permitted livestock use is proper. Grazing animals are not allowed to overuse alpine meadows. Wilderness visitors are required or encouraged by the Forest Ranger to pack along needed horse feed. Horse trails are routed to avoid research areas set aside for the study or maintenance of pristine vegetation.



RESPONSIBILITY OF ALL

Keeping the Wilderness clean, so that all users can enjoy it, is a job requiring the help of each visitor. Wilderness users are encouraged to burn all burnable refuse in fire-safe spots and to pack out all unburnable refuse. The Wilderness Ranger helps with cleaning if litter accumulates. United effort prevents water pollution and leaves the land uncluttered for future users to enjoy.

U.S.
FOREST SERVICE
PLEASANT GROVE
UTAH

MULTIPLE USE TEAMWORK

The Forest Ranger is not alone in his concern for the total environment. Associates and specialists in numerous fields plan and work with him and share his concern for the needs of now and tomorrow. Projects on the National Forests often involve other federal, state, and local government units, as well as private user groups and individuals. Those concerned work jointly to improve coordination. Studies and other jobs are shared, as appropriate. Many people frequently benefit.

For example, Forest Service projects designed primarily for improving National Forest wildlife habitat are of greatest concern to sportsmen and state fish and game department personnel. Properly planned and carried out, such projects can also add to the beauty of the land, improve watershed protection, and increase forage for livestock. These added benefits are important to many other people.

Through teamwork, "multiple use in action" assures short-term and long-term multiple benefits to the community, the State, and the Nation.

THE UNCHANGED SCENE

The Forest Ranger runs his District with the knowledge that one resource use, well managed, can often benefit other uses. He watches closely to assure that carefully planned projects and activities provide such benefits. Realizing that some work plans may not be carried out exactly as originally designed, he is quick to detect any mistakes and take corrective action. He also knows that conflicts may arise. In such cases, every reasonable management alternative is considered.

Will a proposed project or activity be in conflict with other existing or potential uses? If so, what coordination is needed to assure harmony? Any proposal may be disapproved if its incompatible elements cannot be properly resolved.

The multiple use survey provides a sound basis for the Ranger to allow, modify, or deny any proposed use or program. When disapproval is necessary — so that a dam is unbuilt, a stand of timber unharvested, or a sagebrush area is left unsprayed — the area remains unchanged. In such cases, this unchanged scene exemplifies another form of "multiple use in action."

Public Law 86-517
86th Congress, H.R. 10572
June 12, 1960

AN ACT

To authorize and direct that the national forests be managed under principles of multiple use and to produce a sustained yield of products and services, and for other purposes.

National forests, management.

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That it is the policy of the Congress that the national forests are established and shall be administered for outdoor recreation, range, timber, watershed, and wildlife and fish purposes. The purposes of this Act are declared to be supplemental to, but not in derogation of the purposes for which the national forests were established as set forth in the Act of June 4, 1897 (16 U.S.C. 475). Nothing herein shall be construed as affecting the jurisdiction or responsibilities of the several States with respect to wildlife and fish on the national forests. Nothing herein shall be construed so as to affect the use or administration of the mineral resources of national forest lands or to affect the use or administration of Federal lands not within national forests.

30 Stat. 34.

Multiple use; sustained yield.

Sec. 2. The Secretary of Agriculture is authorized and directed to develop and administer the renewable surface resources of the national forests for multiple use and sustained yield of the several products and services obtained therefrom. In the administration of the national forests due consideration shall be given to the relative values of the various resources in particular areas. The establishment and maintenance of areas of wilderness are consistent with the purposes and provisions of this Act.

Sec. 3. In the effectuation of this Act the Secretary of Agriculture is authorized to cooperate with interested State and local governmental agencies and others in the development and management of the national forests.

Sec. 4. As used in this Act, the following terms shall have the following meanings:

Definitions.

(a) "Multiple use" means: The management of all the various renewable surface resources of the national forests so that they are utilized in the combination that will best meet the needs of the American people; making the most judicious use of the land for some or all of these resources or related services over areas large enough to provide sufficient latitude for periodic adjustments in use to conform to changing needs and conditions; that some land will be used for less than all of the resources; and harmonious and coordinated management of the various resources, each with the other, without impairment of the productivity of the land, with consideration being given to the relative values of the various resources, and not necessarily the combination of uses that will give the greatest dollar return or the greatest unit output.

(b) "Sustained yield of the several products and services" means the achievement and maintenance in perpetuity of a high-level annual or regular periodic output of the various renewable resources of the national forests without impairment of the productivity of the land.

Approved June 12, 1960.

"The Forest Service of the U.S. Department of Agriculture is dedicated to the principle of multiple use management of the Nation's forest resources for sustained yields of wood, water, forage, wildlife, and recreation. Through forestry research, cooperation with the States and private forest owners, and management of the National Forests and National Grasslands, it strives—as directed by Congress—to provide increasingly greater service to a growing Nation."

AFPS / ODGEN, UTAH / 68-2213